

REMARKS

Claims 1-2 and 4-21 are pending in the present Application with claims 11-18 and 20-21 having been withdrawn and claim 3 having been canceled. Claim 1 has been amended. Claims 1-2, 4-10, and 19 are presently under review. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Claim Amendments

Claims 1 has been amended to better define the invention. Support for this amendment can be found in Applicant's Specification in at least paragraphs [0014], [0015], [0016], and [0023] and Table 1 (page 11).

Claim Rejections Under 35 USC 102(b)

Claims 1-2, 4-10, and 19 have been rejected under 35 USC 102(b), as being anticipated by Watanable, US Patent No. 3,976,480.

Amended claim 1 recites a nickel-containing alloy comprising: about 1.5 to about 4.5 weight percent aluminum; about 1.5 to about 4.5 weight percent titanium; about 0.8 to about 3 weight percent niobium; about 14 to about 28 weight percent chromium; up to about 0.2 weight percent zirconium; with the remainder being nickel, and wherein the atomic ratio of aluminum to titanium is about 0.5 to about 1.5, with the proviso that the nickel-containing alloy is substantially devoid of tantalum.

Watanable describes a forgeable *molybdenum-containing nickel base alloy **consisting essentially of** carbon, chromium, cobalt, molybdenum, tungsten, aluminum, titanium, boron and zirconium* (see claims, and Tables in Watanable). As recognized by the Examiner, none of the compositions described by Watanable comprise niobium as claimed in amended claim 1. (See claims, and descriptions on column 3 and 4).

Watanable does not disclose a nickel-based alloys having the recited ranges of constituent elements and including niobium, and hence cannot anticipate the claimed invention. Though, Watanable discloses two samples (termed "E and F-"conventional alloys") including niobium, in Table.1, for the sake of comparison, they have chromium, aluminum, and the ratio of aluminum to titanium outside the range recited in claim 1. For example, sample F has aluminum content of 5.8 wt.% (>4.5 wt%) and chromium content of 12.4 wt.% (< 14 wt.%). Similarly, sample E has atomic ratio of aluminum to titanium of 4 (>1.5). There is no discussion in Watanable about niobium addition. In fact, Watanable seems to discourage such addition. For example the resistance to sulphurization data given in column 5, Table 3 would dissuade one ordinary skilled in the art from considering niobium-containing samples because of their

very poor resistance to sulphurization. Since Watanable describes all compositions (within the claimed ranges of additives) without niobium, and has shown very poor resistance to sulphurization for niobium-containing samples, one ordinary skilled in the art would not be motivated to modify the alloys of Watanable to arrive at nickel-containing alloys containing niobium.

In contrast, the inventors have clearly recognized the merits of niobium as one of the primary precipitation strengthening elements (See, for example, Applicant's paragraphs [0015], [0016] and Table.1.) This is not mere optimization of the alloy composition. There is no indication, other than in Applicant's disclosure, of a nickel-containing alloy of the claimed composition. Applicant respectfully requests a withdrawal of the 35 USC 102(b) rejection over Watanable and an allowance of claim 1 and claims 2 and 4-10, and 19 that depend therefrom.

Should the Examiner believe that anything further is needed to place the application in better condition for allowance, the Examiner is requested to contact Applicant's undersigned representative at the telephone number below.

Respectfully submitted,

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July 20, 2007